

ELECTRIC DISTRIBUTION SYSTEM AND METHOD FOR A VEHICLE WITH TWO NETWORKS AT DIFFERENT VOLTAGE LEVELS

Abstract

An electric distribution system and method for a vehicle with two networks at different voltage levels. It consists of an architecture with a network r_1 , fed from another network r_2 , or vice versa, by a CC/CC converter, with network r_2 connected to a generator G and feeding a starter motor S , and both networks r_1 , r_2 connected to corresponding batteries B_1 , B_2 , comprising several equal CC/CC converters C_1 , C_2 , C_3 in shunted arrangement between r_1 and r_2 , connected to a common point and each one supplying a set of differentiated loads Q_1 – Q_6 , the power of each converter being lower than that of the maximum consumption of the assigned loads, whose converters C_1 , C_2 , C_3 are integrated in a master/slave architecture controlled from a control center M with a microcontroller managing the power to be sent to the loads by each one of said converters in a synchronized manner.